patient was discharged with a healthy granulating wound five weeks after the operation.—*N. Y. Surgical Society.* Nov. 22, 1886.

BONES, JOINTS, ORTHOPÆDIC.

I. Operative Intervention in Irreducible Traumatic Dislocations. This was the order of the day on the fourth day of the last French Congress of Surgery. M. MOLLIÈRE (Lyon) remarked that for the small articulations like those of the fingers, the question is simple; arthrotomy may be performed with certainty of obtaining a mobile articulation.

For the shoulder, subcutaneous section may be employed, a fine tenotome being introduced under the skin and passed all about the head; he had obtained 7 successes by this method. When the head is at the same time broken and dislocated, the best plan is to introduce the superior extremity of the lower fragment into the glenoid cavity. In certain cases of irreducible dislocation it is logical to fracture the humerus and he recommends it. The establishment of a pseudarthrosis should not be attempted, but the mere reduction of the inferior fragment into the glenoid cavity.

Of the elbow, every dislocation unaccompanied by articular deformity can be reduced; by applying the grip of the osteoclast considerable force can be exerted; by this means, he had been able to reduce a dislocation of a year's duration. When the triceps opposes mobility, the olecranon may be fractured without destroying the expansion of the triceps tendon. He absolutely rejects subcutaneous section. Arthrotomy and reduction may be done, but if there be osseous deformities, it is better to perform resection; partial resection is better, humeral resection is generally sufficient. In every case the olecranon should be preserved because of its effect on the function. He had seen patients who had used their arms at the end of a month. In young subjects it is preferable to resect a little of the periosteum. In all, immediate union should be sought for, in default of which, there is danger of the formation of inconvenient osteophites.

In case of backward dislocation of the foot, a cutting operation is

unnecessary; supra-malleolar osteoclasis is sufficient. This was done in a man of 73. At the end of 60 days he walked perfectly.

M. TRELAT (Paris) had in his service a year before a man, æt. 51, affected with iliac dislocation of the hip of direct causation, dating back $6^1/_2$ months. Whenever the patient placed his foot on the ground and attempted to bear his weight upon it, it would flex, so that locomotion was almost impossible. All efforts at reduction by manipulation and force having failed, in view of the age of the patient, as the limbs were parallel with but 4 cm. shortening, and as there was reason to hope that the pain and with it the weakness would diminish with time, he performed no operation. He has collected but 5 cases of this kind, in which there were two deaths, two resections of the head and his own case. In one case, of six weeks duration (Polaillon's case) reduction was obtained by the operation, but the patient died. There are no recorded cases of cure by reduction of an ancient dislocation of the hip, by operation. He concluded: (1) a prompt and exact diagnosis is necessary in dislocation of the hip; (2) immediate reduction is necessary, by manipulation if possible, that failing, by force; the efforts should be renewed and varied; (3) if, notwithstanding all attempts, failure has to be acknowledged, the patient must not be abandoned at this still favorable period; this is the time when subcutaneous section of ligaments and muscles and even arthrotomy may permit reduction; (4) after two or three months, manipulation and the employment of very gentle force alone give any chance of reduction; (5) in case of ultimate failure, the variety of dislocation and the position of the limb should be considered; (a) if it be in extension and standing is possible, the best plan would be to favor the formation of a nearthrosis; (b) if the limb is flexed and standing impossible, osteoclasis or even osteotomy, with straightening of the limb would be the resort; (c) if, besides the vicious position, the head of the femur, more or less deformed, is the seat of permanent pains, resection would be the better procedure.

M. VERNEUIL (Paris), in attempting the reduction of an ancient subpubic dislocation, had fractured the neck of the femur, the head was left under the skin like a small apple. He was able to give the limb an excellent position and the result was very satisfactory.

M. BOUILLY (Paris) had succeeded in reducing two dislocations of the elbow, of respectively $4^1/_2$ and $8^2/_3$ months standing, in a child of 9 and a woman of 40 years by the use of the extension apparatus of Hennequin. In a case of obturator almost perineal dislocation of the hip of three months duration, so pronounced that in the sitting posture the patient's knee touched his chin, unsuccessful efforts at reduction were made, but during the manipulations, the femur was accidentally fractured at tne juncture of the upper and middle third, giving a useful limb; in a similar case he would prefer osteotomy.

M. OLLIER (Lyon), after referring to the infrequency of resections in dislocation of the shoulder, but four cases being known to him, related a case of complete intra-coracoid dislocation; six months after the accident, he made an unsuccessful attempt at reduction; three months later he performed arthrotomy; having made the usual incision and exposed the head, he divided everything which could hinder reduction; the capsule and the head were under his eye but he could not get the head into the glenoid cavity. He then removed 43 mm. of the humerus, which exposed a portion of the capsule pressed down into the glenoid cavity and forming a sort of meniscus, which filled it; this was incised. The muscles had retracted to such an extent that it was difficult in spite of this resection to bring the superior extremity of the humerus into the glenoid fossa; it was necessary to immobilize the arm in a special attitude to obtain the humero-glenoid pseudarthrosis; it was placed in adduction, the elbow on the chest, and retained for two months. Notwithstanding an attack of general articular rheumatism at the moment when it was desired to begin motion, a perfect result was obtained in eight months. He particularly emphasized the tendency of the superior extremity of the humerus to push forward; precautions should be taken against this tendency, to avoid a coraco-humeral articulation which is indisputably inferior to the gleno-humeral articulation.

From an operative standpoint, three classes of dislocation of the shoulder should be distinguished, (1) dislocation forward, (2) dislocation downward and (3) dislocation backward. Of the latter there are no known cases. For the first, incision as for resection is indicated.

For the second, Langenbeck has made an incision in the axilla and the patient was cured, but he had been lost to sight and the ultimate result was unknown. However, even in cases where the head protrudes in the axilla, the ordinary incision for resection should be adopted, because it alone permits good examination of the glenoid fossa, which is indispensable.

M. DECES (Rheims) had performed arthrotomy for an irreducible backward dislocation of the elbow of three months standing; the result was good, notwithstanding a little suppuration, supination and pronation being easy, although flexion and extension were incomplete. In another similar case, a favorable result was also obtained. He considers the best operative procedure to be: a T-shaped incision, the horizontal line passing from epicondyle to epitrochlea and the othe perpendicular to it on the tendon of the triceps; the ulna is isolated and the tendon of the triceps and then the lateral ligaments are divided, when the entire articulation is visible.

M. TRIPIER (Lyon) had recently operated in two cases of dislocation of the shoulder with fracture of the humerus. In the first case, it was easy to recognize symptoms of the fracture and at the same time to ascertain that the head was below the coracoid process, showing that there was at the same time fracture and complete subcoracoid dislocation. Attempts at reduction failed, but it was observed that pulsation was absent in the radial artery. Some time later it was noticed that pulsation was completely lacking in the axillary but present in the brachial; this decided him to operate. Incision found the capsule intact; two pieces of bone were locked between the head and the cotyloid cavity; failing to extract these otherwise, the head was removed, from which a good cure with an excellent functional result was obtained. The cause of the vascular troubles apparently was not ascertained, although they were evidently relieved.

The second case was a man of 55, who had been thrown by a horse, dislocating the head of the humerus. Six days later, after ineffectual treatment by a physician, he entered the hospital, gangrene having already appeared in the hand and forearm. On performing disarticulation of the shoulder, the head was found below and within the cora-

coid process, but buried deeply at the anterior and inferior part of the glenoid fossa, which was covered by pieces of bone corresponding to the tuberosities, which had been torn away; these were removed. The patient being already infected with gangrene, the operation was not sufficient to stop the advance of the process; death supervened in a few days. It seems difficult to say whether in this case there was a primary or a secondary arterial lesion.

From these two cases he draws the following conclusions: (1) If vascular troubles exist, the surgeon should abstain from every kind of manœuvre of reduction; the operation alone permitting the reduction or the extirpation of the dislocated part, will sometimes be sufficient; in case of a simple wound of the artery, it should be ligatured in the wound; in case of aneurism, it would perhaps be preferable to ligature the subclavian; gangrene, according to circumstances, demands immediate or later disarticulation or amputation. (2). If there be no vascular troubles, except there be a contraindication in the general condition, reduction should be attempted; in case of failure, the surgeon is justified in operating, provided the fragments be in relation with one another; in the contrary case it is preferable to resort to manipulation, extirpating the dislocated part later, if necessary.

M. MAYDL (Vienna), in the treatment of five cases of ancient dislocation of the elbow, had been confronted by the following questions: (1) The choice of incision for arthrotomy; (2) the operative procedure, *i. e.*, whether to be content with a simple arthrotomy or to resort at once to resection; (3) the method of dressing and treatment after the operation. In the most common dislocations (backward and outward), we have a choice between (*a*) the longitudinal incision of Langenbeck, (*b*) the transverse incision of Volcker, (*c*) the two lateral incisions of Heuter and (*d*) two incisions on the sides of the olecranon. The longitudinal incision and the two lateral incisions of Heuter do not give light enough. The transverse incision gives free access to the joint. but it impedes the mobilization of the articulation at the beginning, and condemns it to a long rest, the consequences of which are harmful; accordingly, in his last case, he had made two lateral incisions of 6 cm.; stripping up the periosteum with the soft parts,

enough light was obtained to avoid all danger of wounding the ulnar nerve. As far as possible, it is desirable to abstain from resection and reduce by simple arthrotomy. Sometimes it is difficult to maintain the reduction after having secured it; in one case he drove two nails into the trochlea to prevent the olecranon slipping backward. In conclusion, he would leave the wound open to avoid the accumulation of serum and the possibility of suppuration in the joint; passive motion should be begun in the third week.

M. SEVREANO (Bucharest), in a case of ischiatic dislocation of the femur, in a female æt. 20, was unable to obtain reduction, although he had exerted upon the limb traction to the extent of 400 kilogrammes, and, making an incision over the joint, he discovered that the capsule, twisted upon itself, masked the acetabulum; he then resected the head and straightened the limb. The patient made a quick recovery, although, as it has been impossible for him to see her again, he cannot report upon the final functional result.—*Revue de Chirurgie.* Nov., 1886.